

REMARKS

Claims 1-13 and 15-24 are pending in the application.

Claims 1 and 11 are amended above to more clearly set forth what it is that the Applicant regards as the invention. Specifically, claim 1 is amended to incorporate the subject-matter of claim 14 and an additional limitation that there is no means for substantially preheating one of the temperature sensitive elements relative to the other. Claim 11 is amended to introduce the "no substantial preheating" limitation and is consistent in this respect with amended claim 1.

The preamble of claims 1-10 are amended above to recite an "apparatus" instead of a "device".

Claim 14 is cancelled from the application without prejudice and the dependency of claims 15 and 16 are amended accordingly.

New claims 17-24 are added to the application.

No new matter has been added to the application by these claim amendments.

The examiner's claim rejections are overcome or they are traversed as set forth below.

I. THE ALLOWABLE SUBJECT MATTER

The examiner indicated that claims 6-7, 13 and 16 were allowable but objected to the claims since they depended upon a rejected base claim.

New claims 19, 21 and 22 correspond to claims 6, 13 and 16 rewritten in independent form and claim 20 corresponds to previous claim 7, likewise indicated as allowable. Claims 19-22 are believed to be allowable.

II. THE ANTICIPATION REJECTIONS

A. The Rejection of Claims 1-5, and 9-10 Over Kanekawa et al.

The examiner rejected claims 1-5 and 9-10 over Kanekawa et al. The examiner's rejection is moot in view of the amendment to claim 1 above to incorporate the feature of dependent claim 14.

B. The Rejection of Claims 1-5, 8, 11-12 and 14-15 Over Jones et al.

The examiner rejected claims 1-5, 8, 11-12 and 14-15 over Jones et al. (GB 2314164). Jones et al. does not anticipate any pending application claim for at least the reasons indicated

below.

As an initial matter, the Applicant directs the examiner's attention to page 1 of the present specification where the shortcomings and limitations of the Jones et al. invention are discussed. The present invention was developed specifically to overcome one or more of the identified limitations of the Jones et al. invention.

Specifically, Jones et al discloses an apparatus, method and device for the temperature measurement of rapidly-fluctuating, high temperature fluid flows. The methodology adopted by Jones et al. is not the same as that of the present invention. In Jones et al., the two temperature sensitive elements that are located on a structure and that are exposed to the fluid flow are, in use, intended to experience different heat transfer rates when exposed to the same fluid temperature. The only method taught by Jones et al. for establishing the different heat transfer rates is to preheat one of the elements. For example the Figure 5 embodiment of Jones et al., element preheating is accomplished by electrical heating element 17 within one of the segments 15 of the illustrated probe. Whatever means is chosen for preheating one of these elements, it inevitably complicates the measurement process and adds to the cost and complexity of the required equipment. Furthermore preheating one of the temperature sensitive elements places a practical limitation on the temperatures which can be measured by the Jones et al. device, as the initial temperature differential is rapidly eliminated as the two elements are heated by the fluid.

The presently claimed invention is novel because the Jones et al. reference fails to recognise that the inconvenience and performance limitations posed by the preheating method can be overcome simply by choosing a physical configuration of the probe which will establish different heat transfer rates due to the different thermodynamic properties of the regions of the structure into which heat from the fluid diffuses, and more particularly as recited in each of claims 1, 11 and 23 by providing regions of different thermal products - a parameter which is defined on page 5, lines 8 to 10 of the present application.

To further distinguish the novelty of the present invention from the Jones et al. device, the claims are amended above to positively recite that there is no substantial preheating of one element relative to the other. All pending application claims are believed to be novel over Jones et al. for at least each of these reasons.

III. NEW CLAIMS 23-24 ARE INDEPENDENTLY PATENTABLE

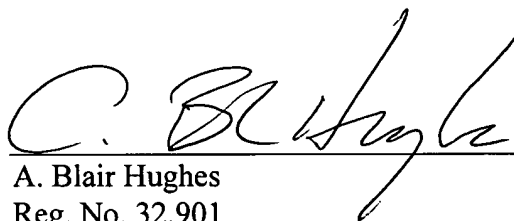
Independent claim 23 is newly added to the application. Claim 23 is novel over Jones et al. at least because of the absence of the Jones et al. preheating means and by the physical characteristic of the temperature sensitive elements on a curved *lateral* surface of the elongate structure. Claim 24 is novel at least by virtue of its dependence upon claim 23.

CONCLUSION

Pending application claims 1-13 and 15-24 are believed to be patentable for the reasons indicated above. Favorable reconsideration and allowance of the pending application claims is courteously solicited.

Date: January 16, 2007

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